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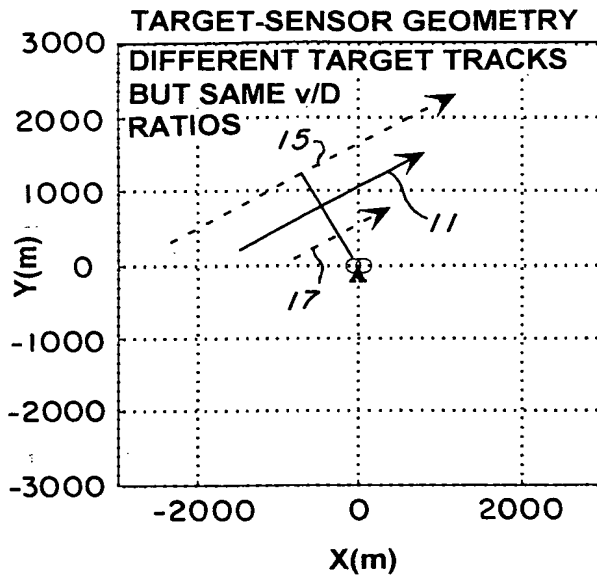


FIG. 1a

DELAY CURVE OBTAINED BY ARRAY A

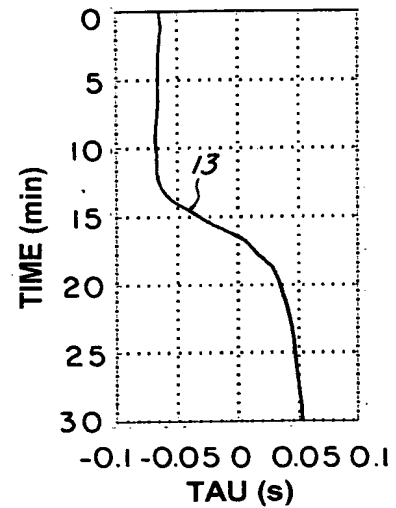


FIG. 1b

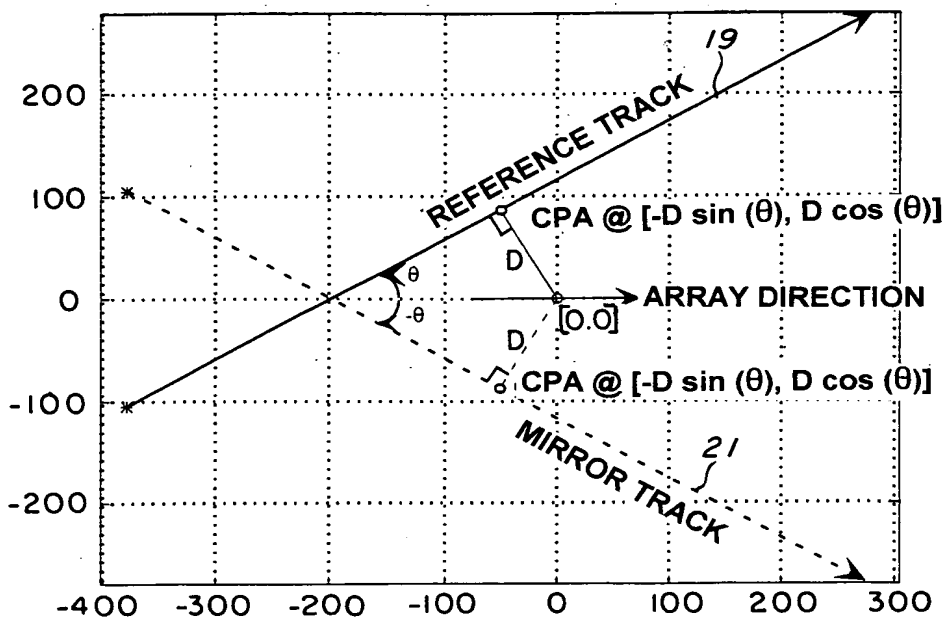


FIG. 2

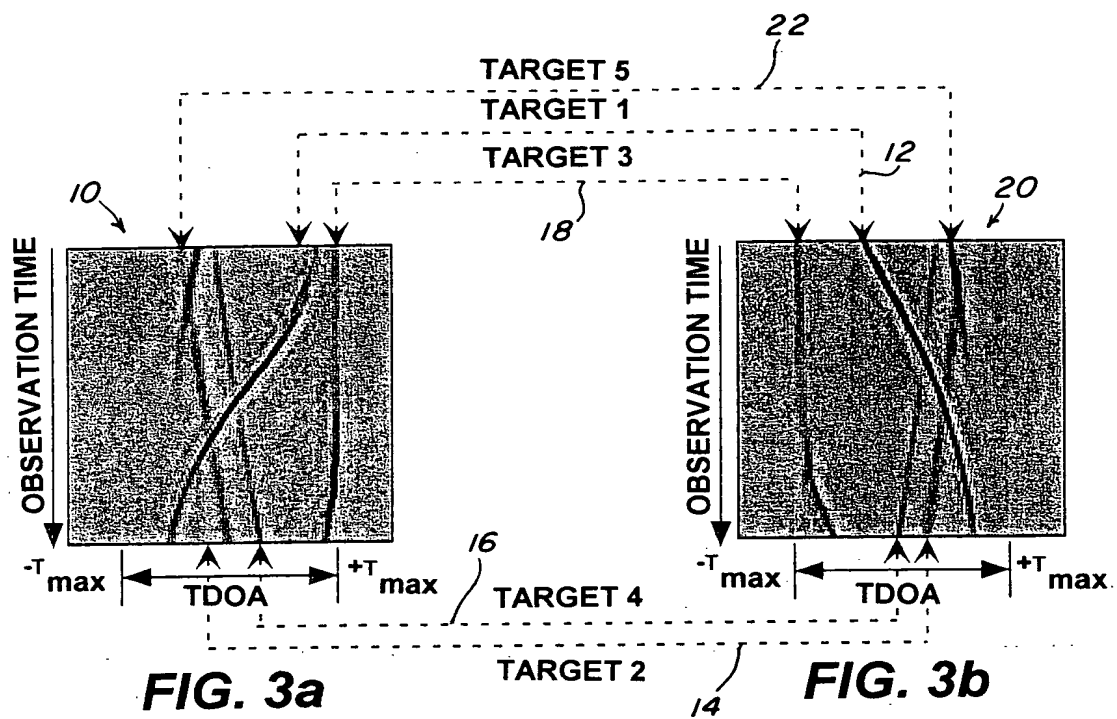


FIG. 3a

FIG. 3b

FIG. 4a

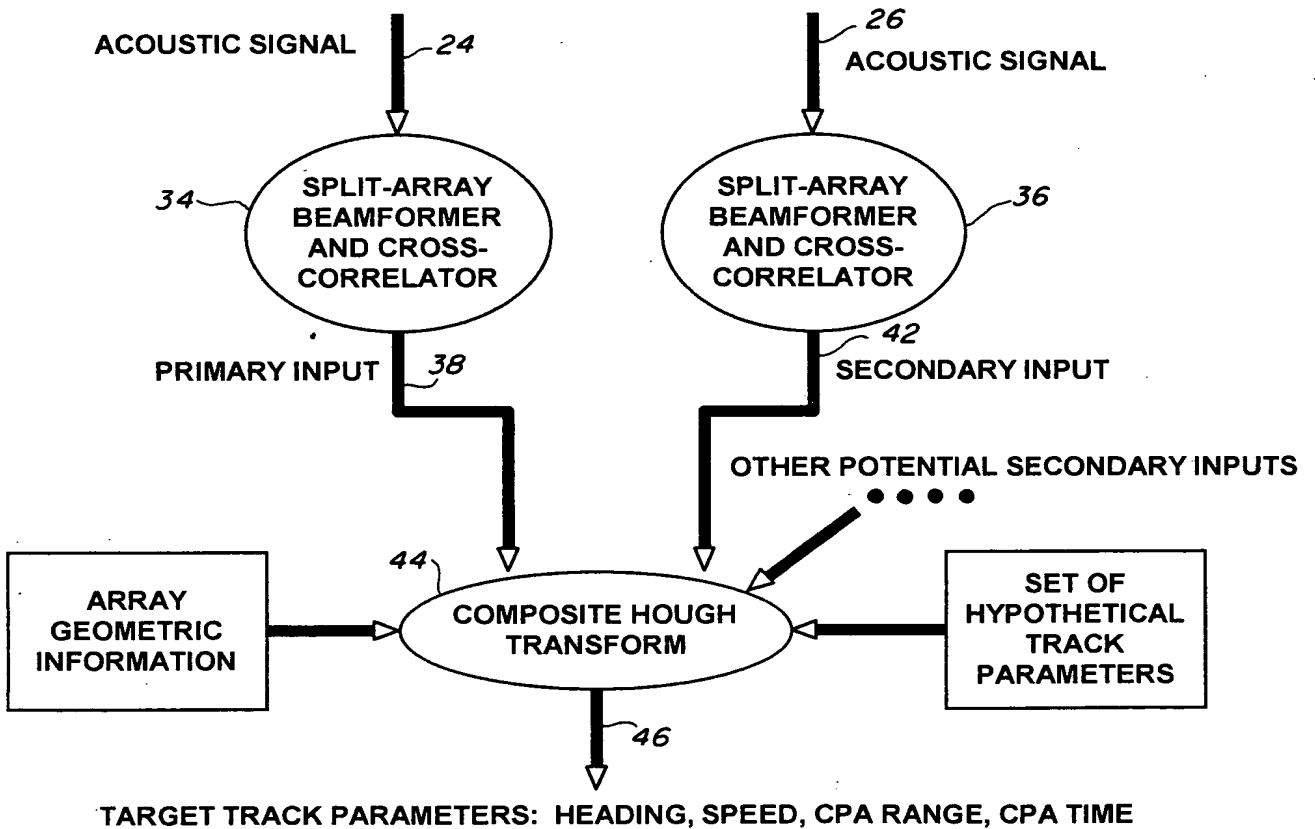
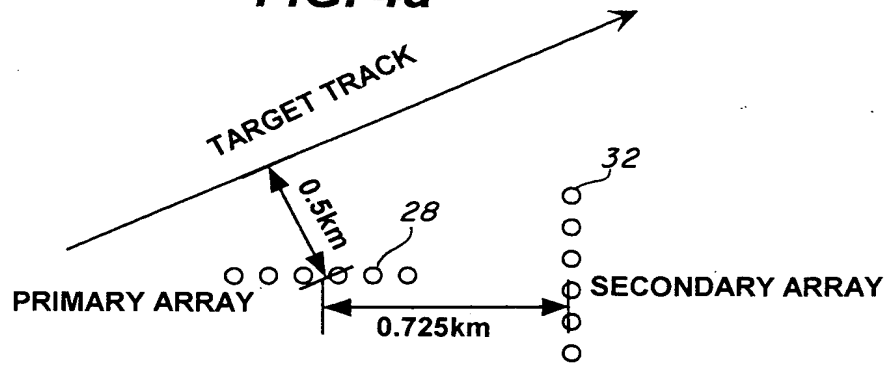


FIG. 4b

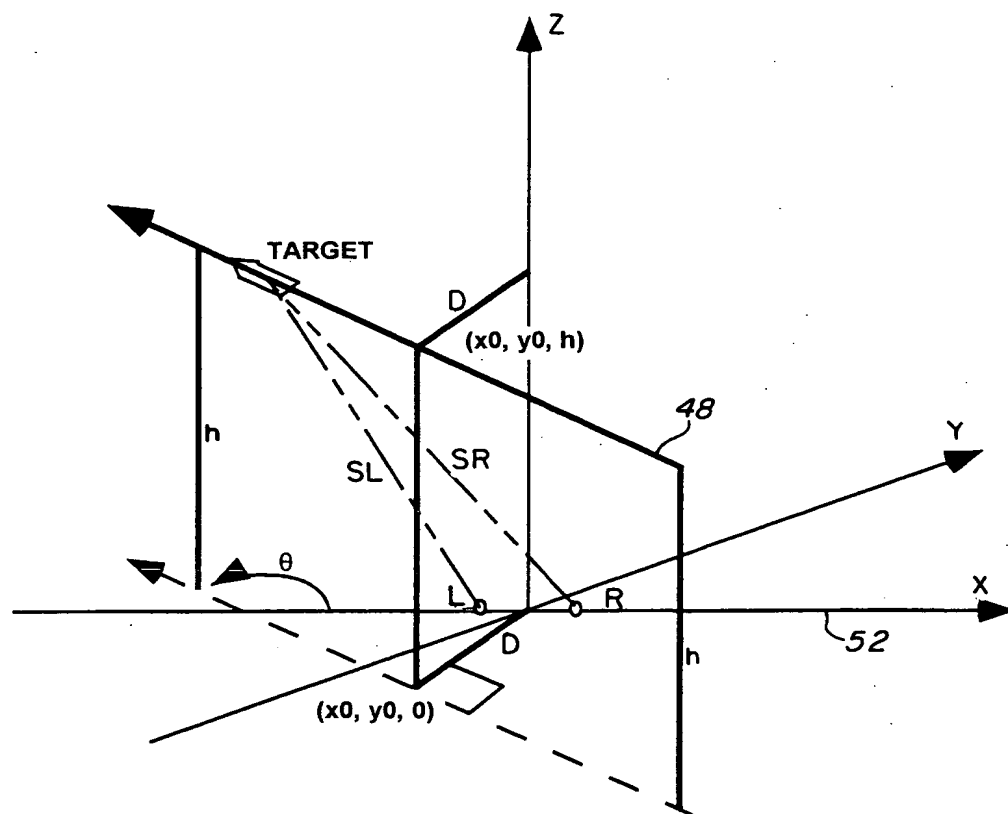
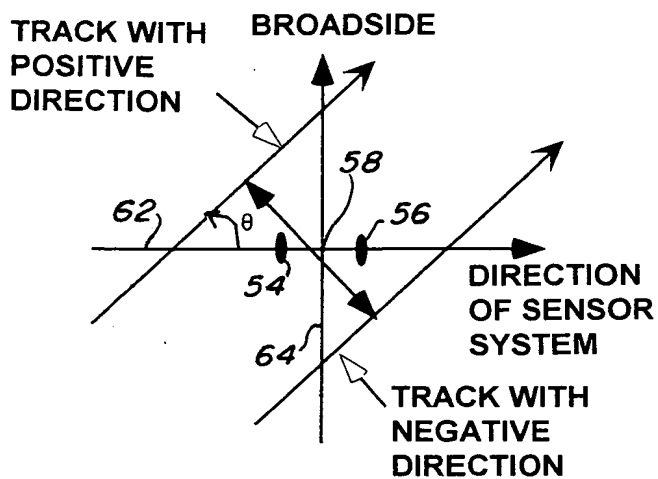
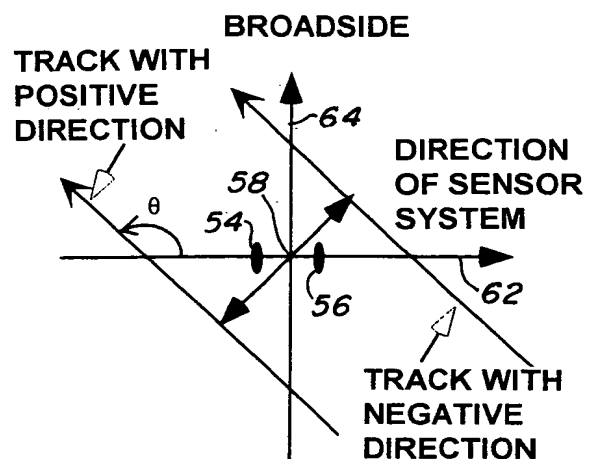


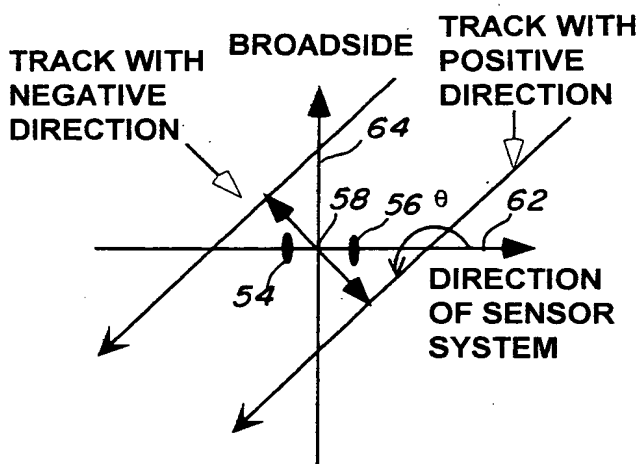
FIG. 5



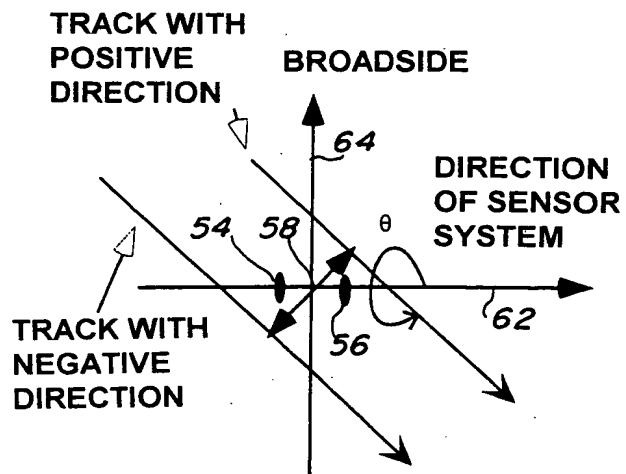
$0^\circ < \theta < 90^\circ$
FIG. 6a



$90^\circ < \theta < 180^\circ$
FIG. 6b



$180^\circ < \theta < 270^\circ$
FIG. 6c



$270^\circ < \theta < 360^\circ$
FIG. 6d

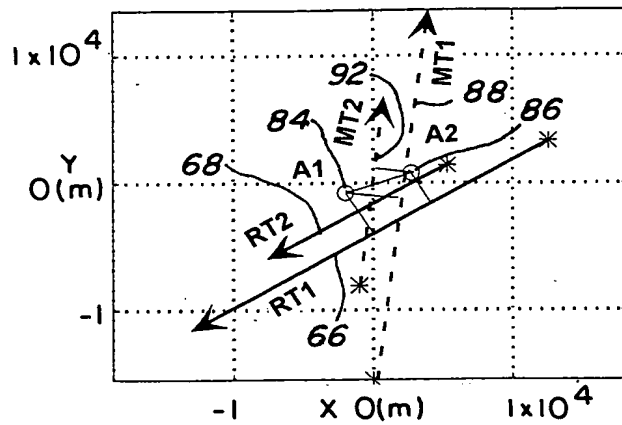


FIG. 7a

FIG. 7b

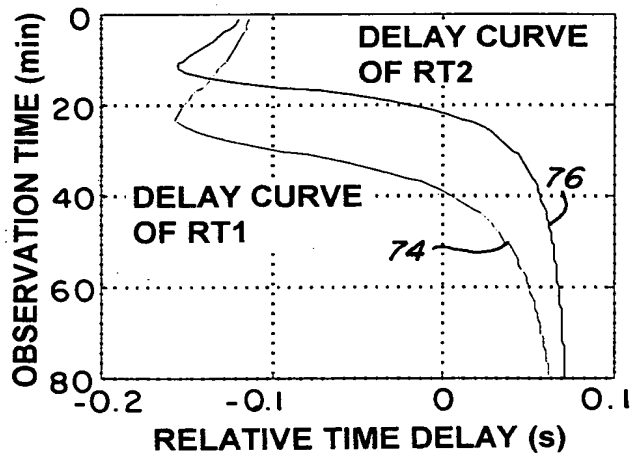
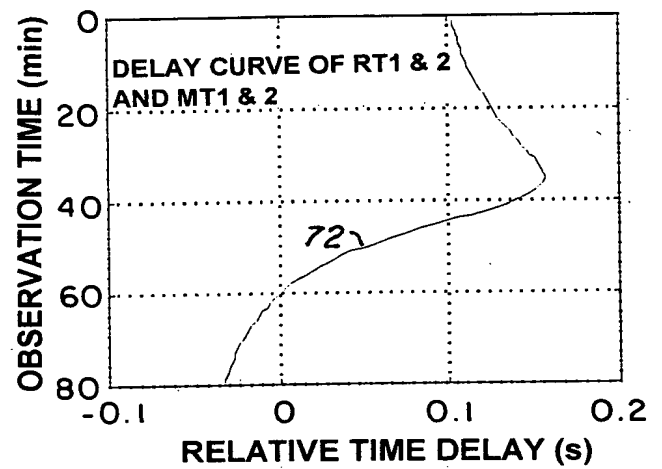
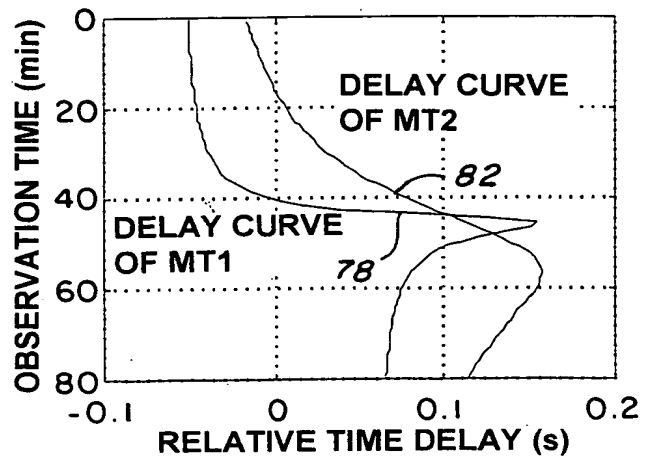


FIG. 7c

FIG. 7d



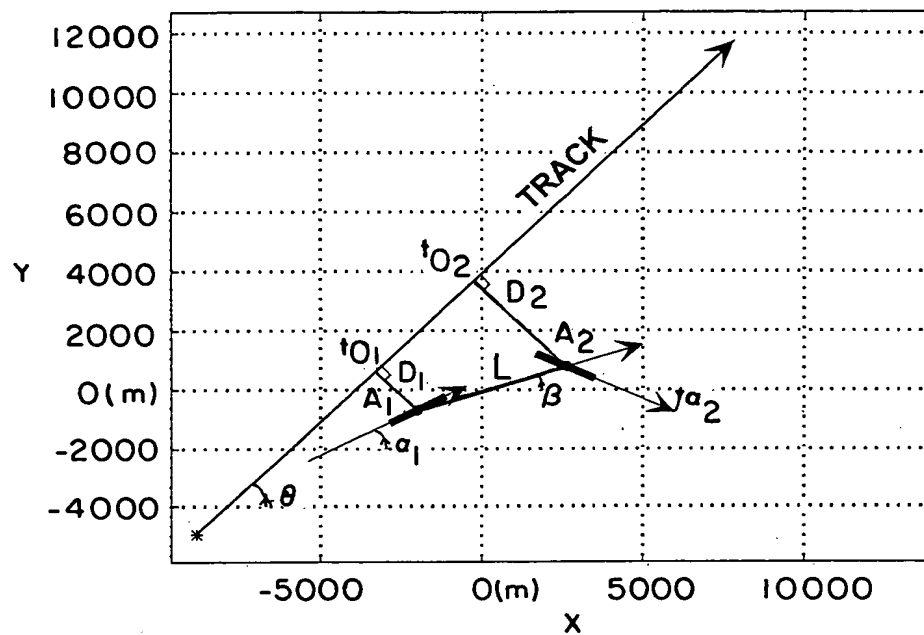


FIG. 8

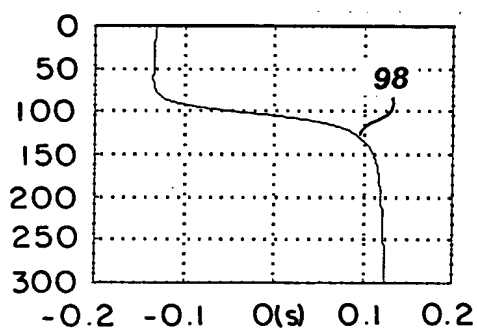


FIG. 9a

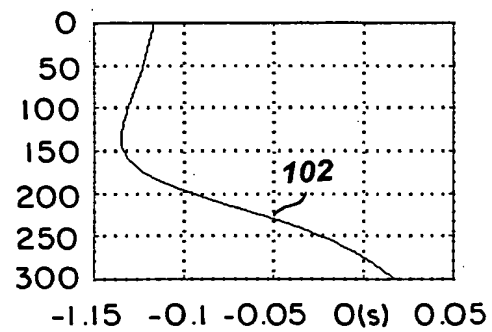
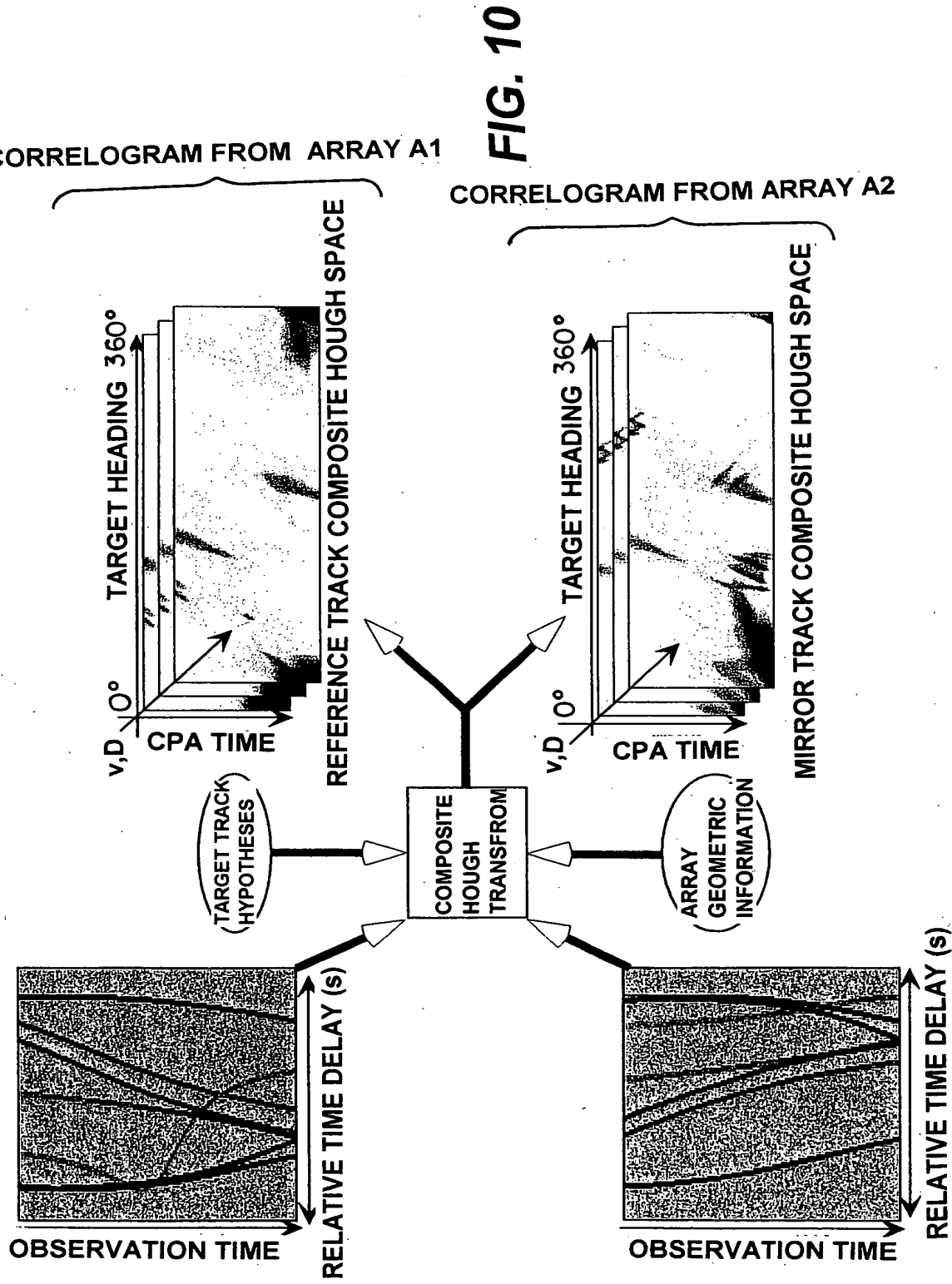


FIG. 9b



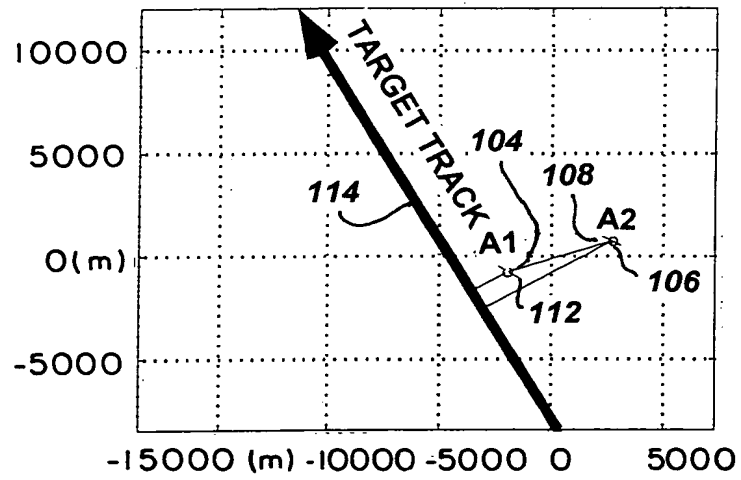


FIG. 11a

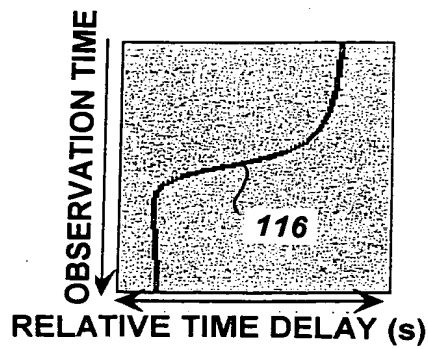


FIG. 11b

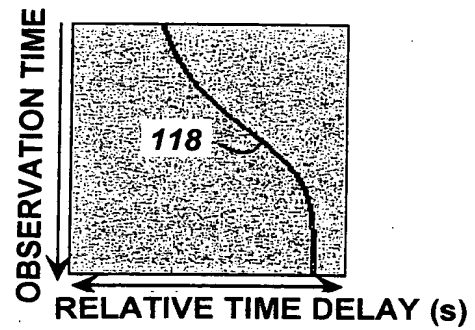


FIG. 11c

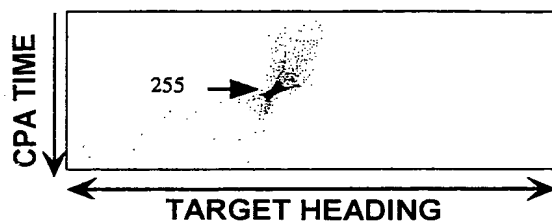


FIG. 12a

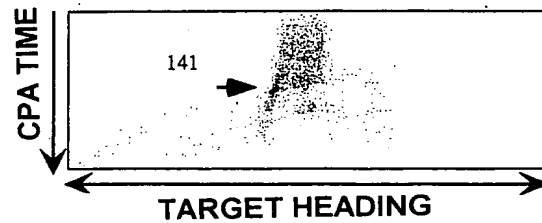


FIG. 12b

FIG. 13a

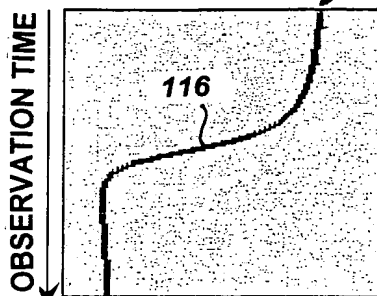
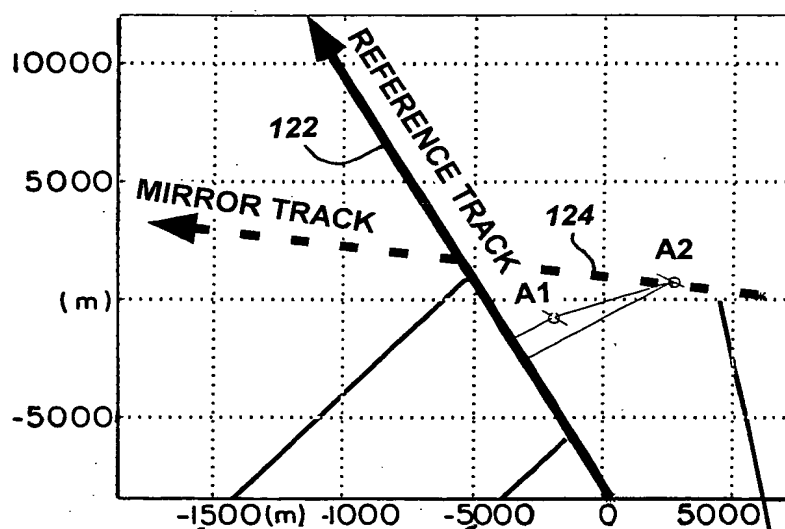


FIG. 13b

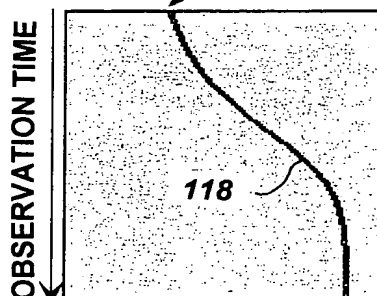


FIG. 13c

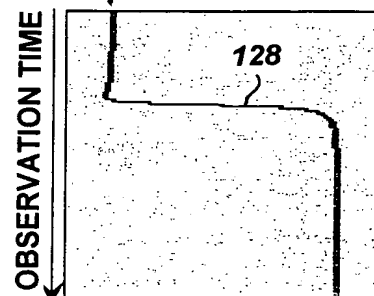


FIG. 13d

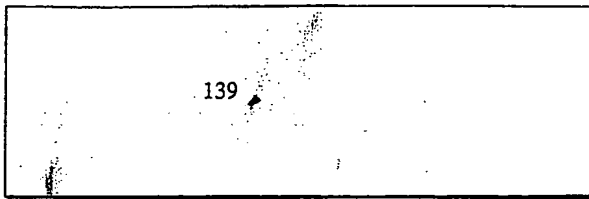


FIG. 14a

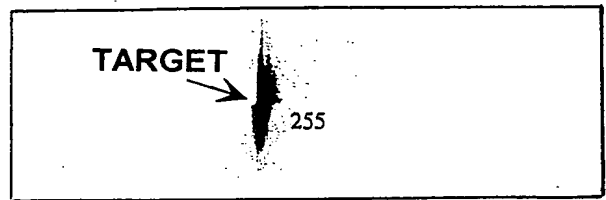


FIG. 14b

FIG. 15a

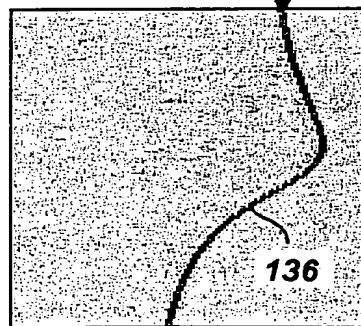
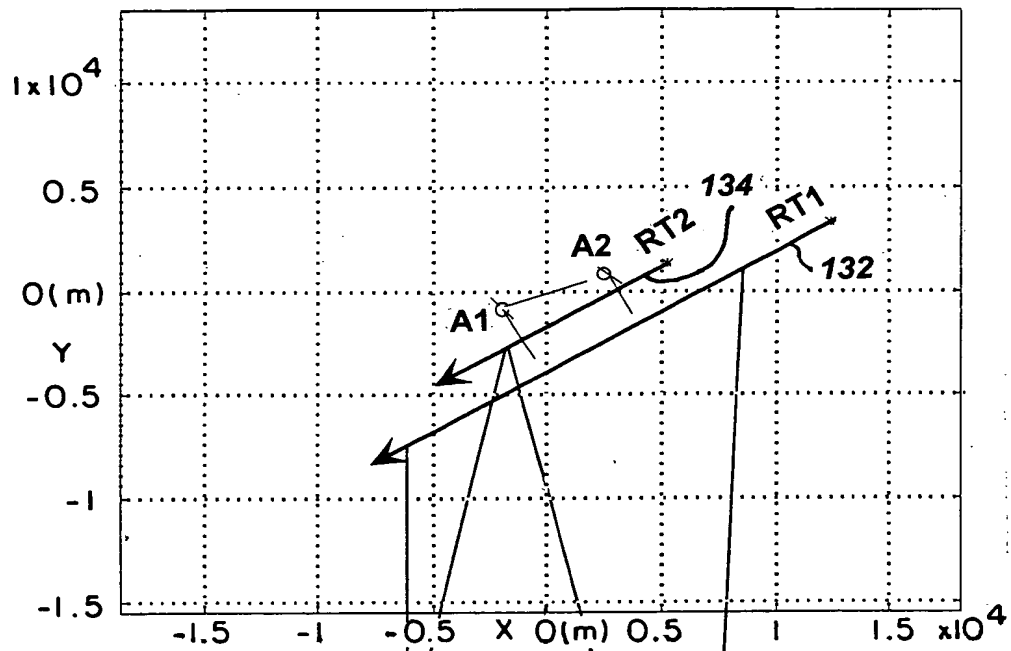


FIG. 15b

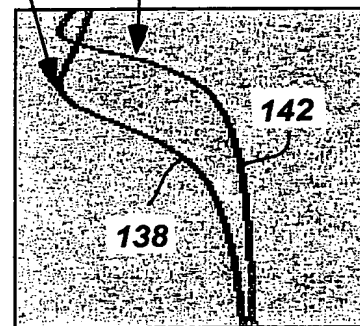


FIG. 15c

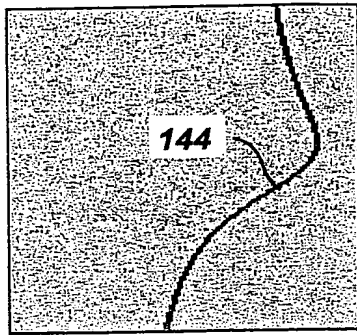


FIG. 16a

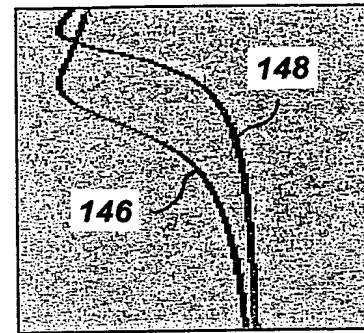


FIG. 16b

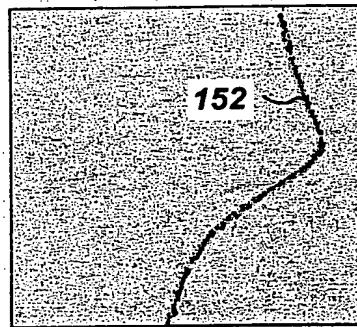


FIG. 16c

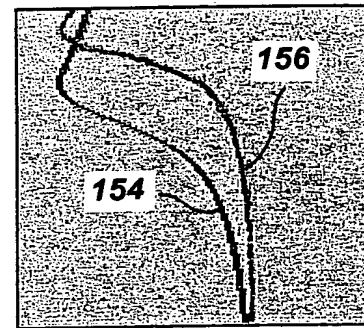


FIG. 16d



FIG. 17a



FIG. 17b

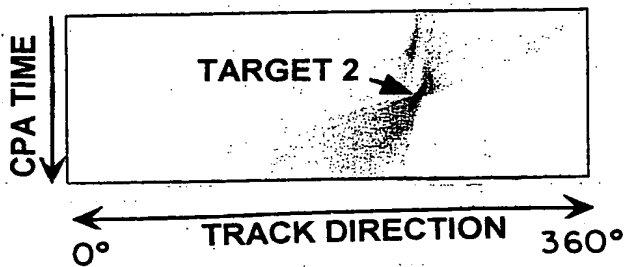


FIG. 17c

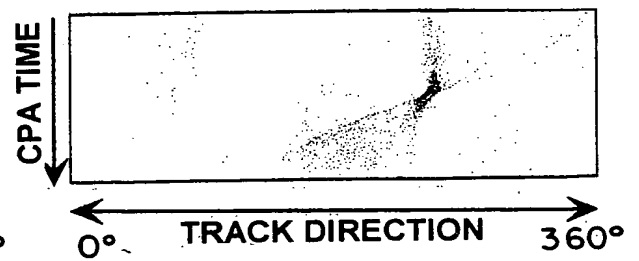


FIG. 17d



FIG. 18a

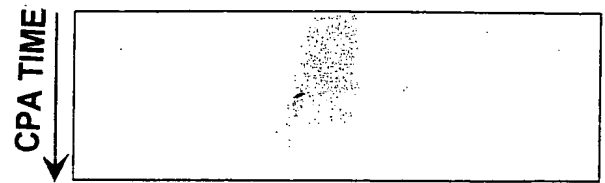


FIG. 18b

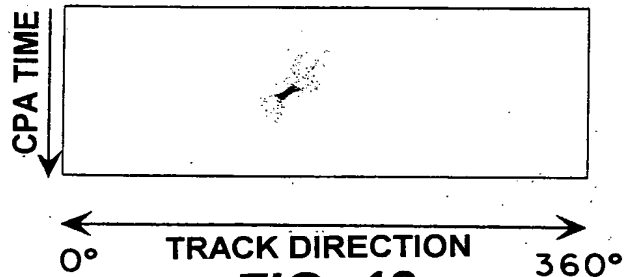


FIG. 18c

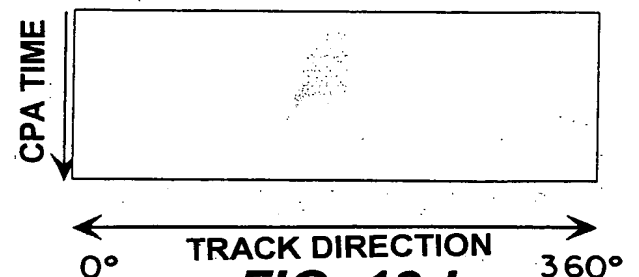


FIG. 18d

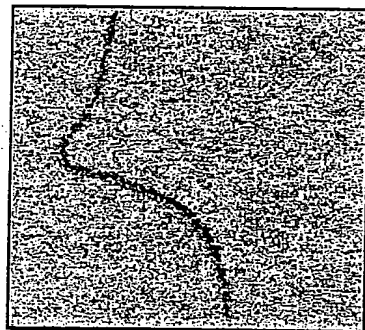


FIG. 19a

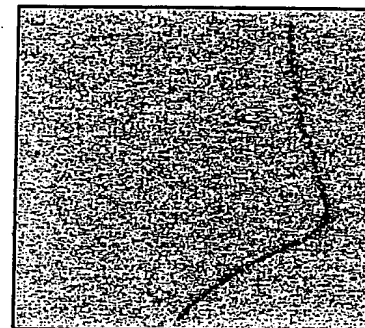


FIG. 19b

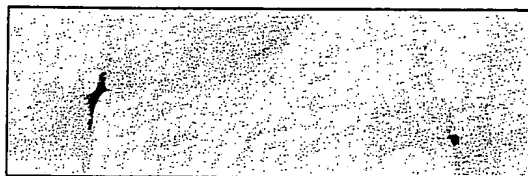


FIG. 19c



FIG. 19d

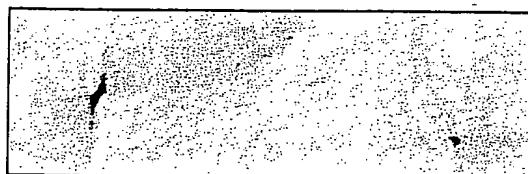


FIG. 19e

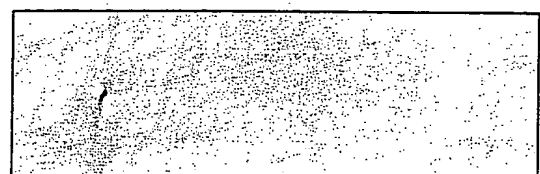


FIG. 19f

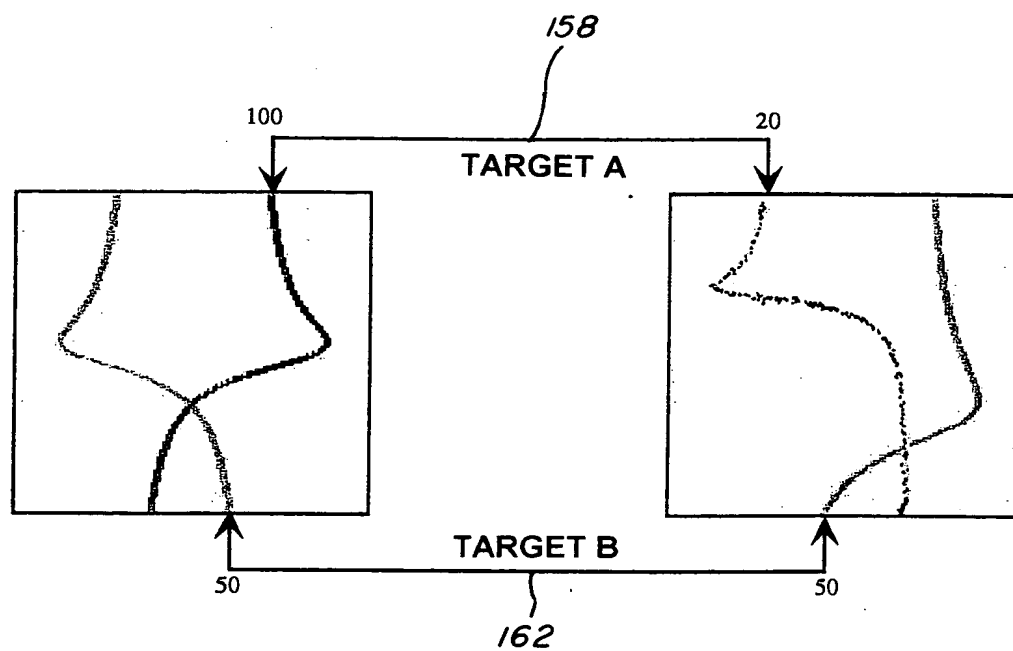


FIG. 20

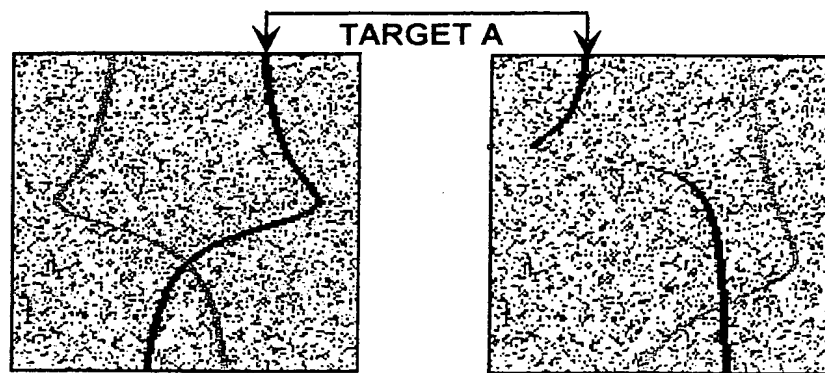


FIG. 21a

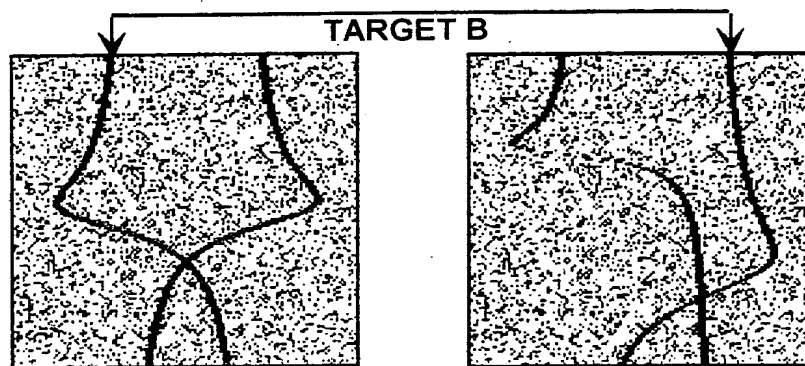


FIG. 21b

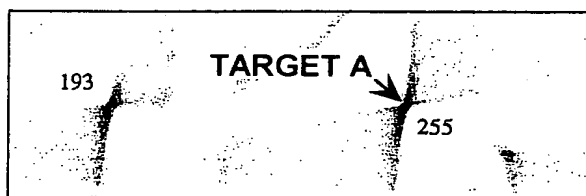


FIG. 21c

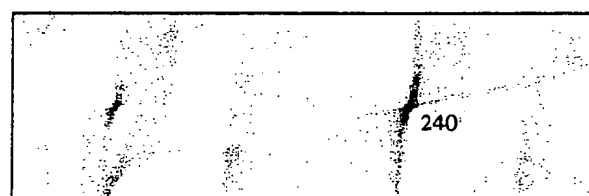


FIG. 21d

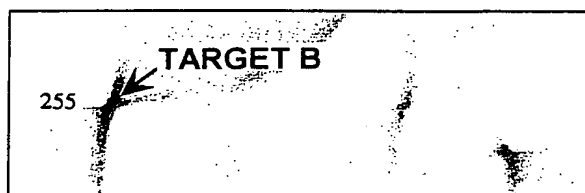


FIG. 21e

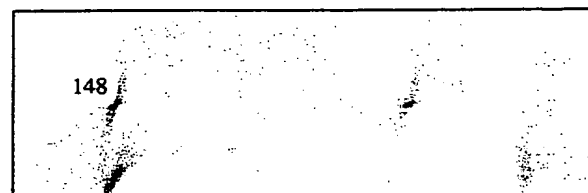


FIG. 21f

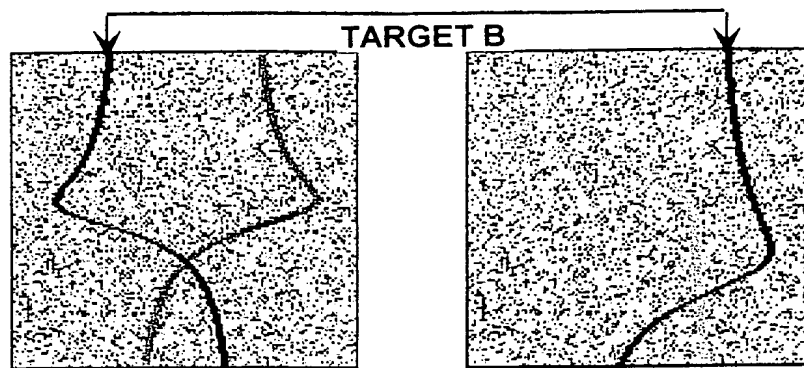


FIG. 22a

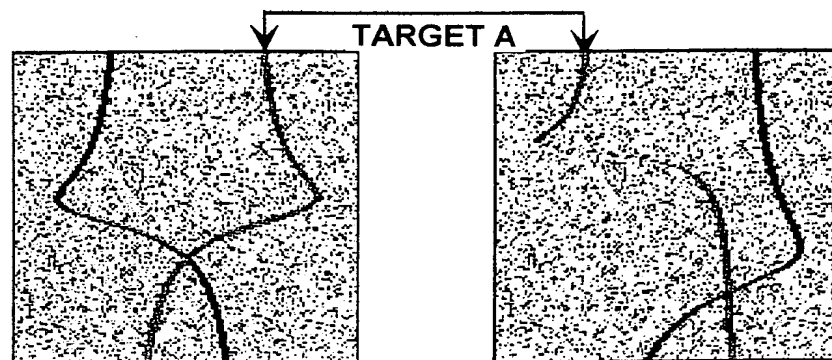


FIG. 22b

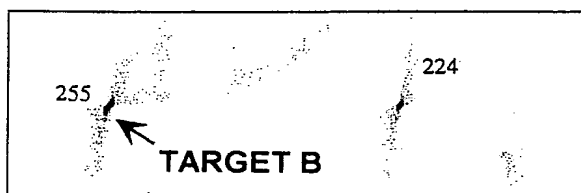


FIG. 22c

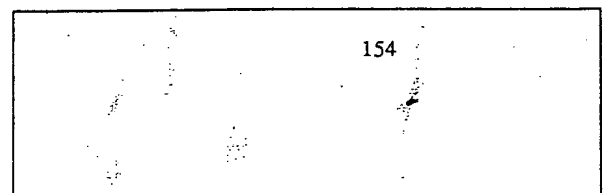


FIG. 22d

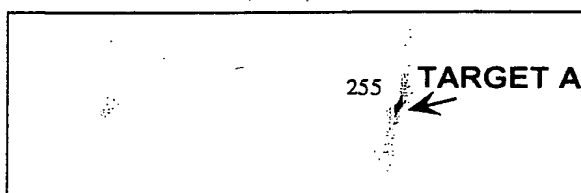


FIG. 22e

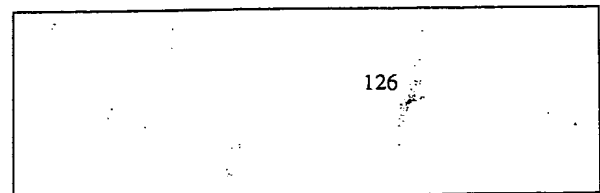


FIG. 22f

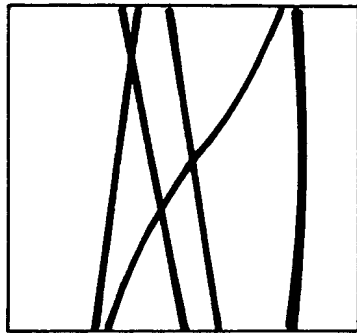


FIG. 23a

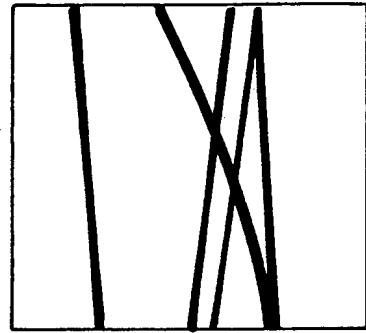


FIG. 23b

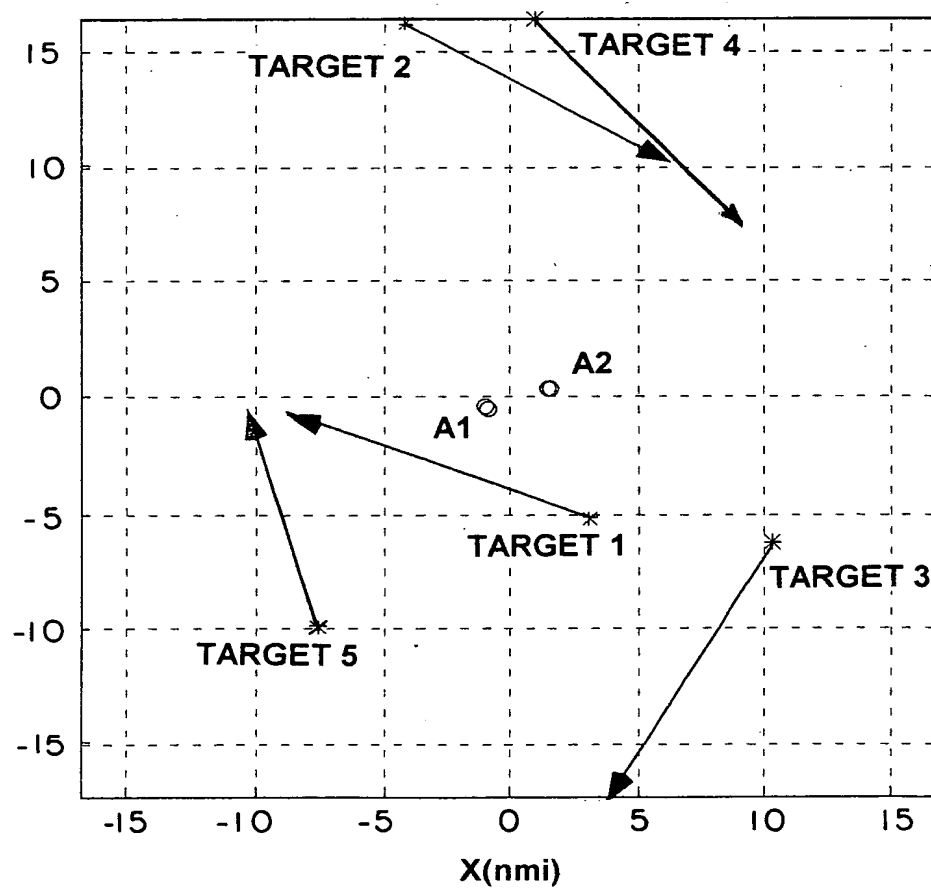


FIG. 24

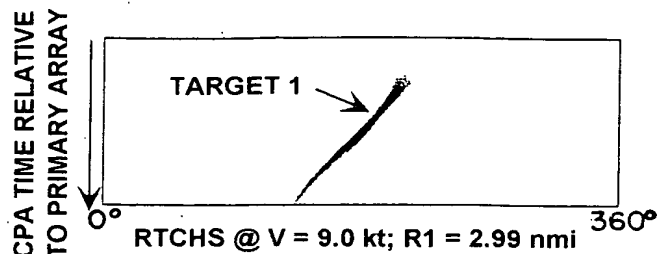


FIG. 25a

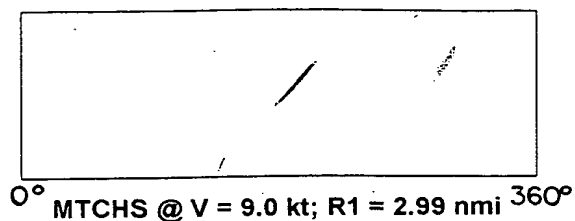


FIG. 25b

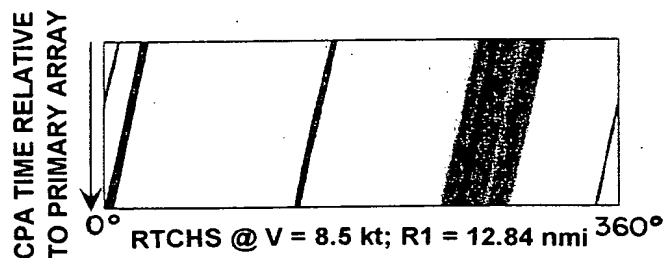


FIG. 25c

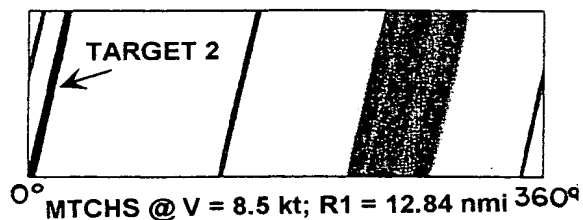


FIG. 25d

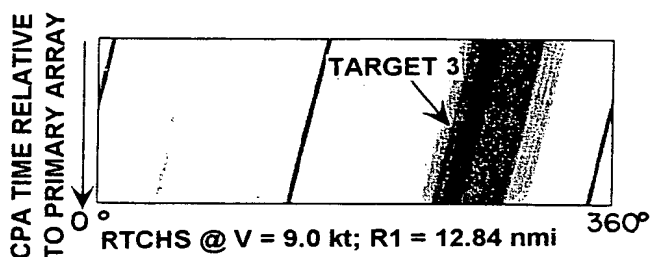


FIG. 25e

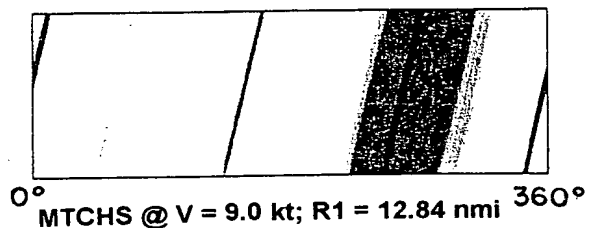


FIG. 25f

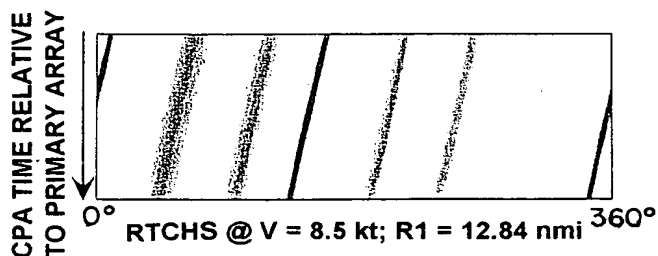


FIG. 25g

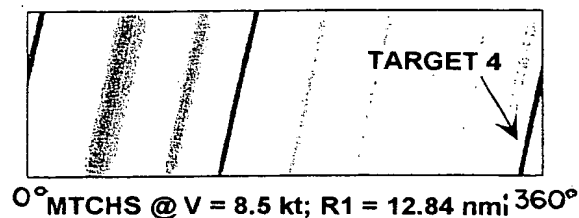


FIG. 25h

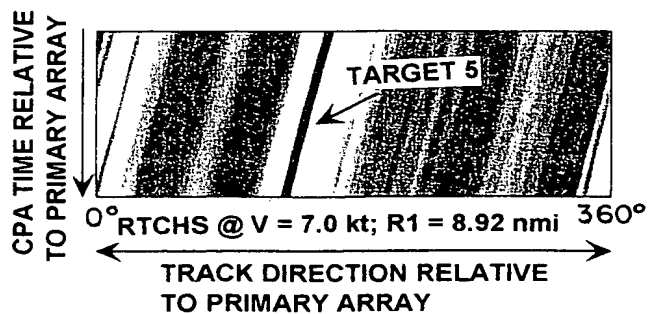


FIG. 25i

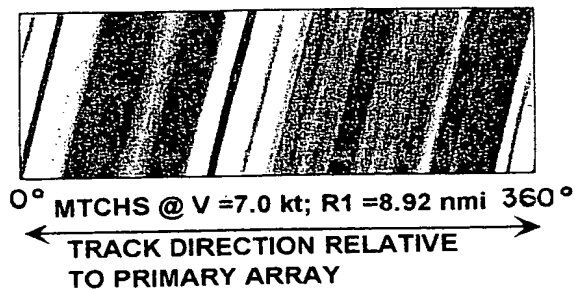


FIG. 25j

THE BASIC FLOW CHART FOR THE ADDITIVE COMPOSITE HOUGH TRANSFORM

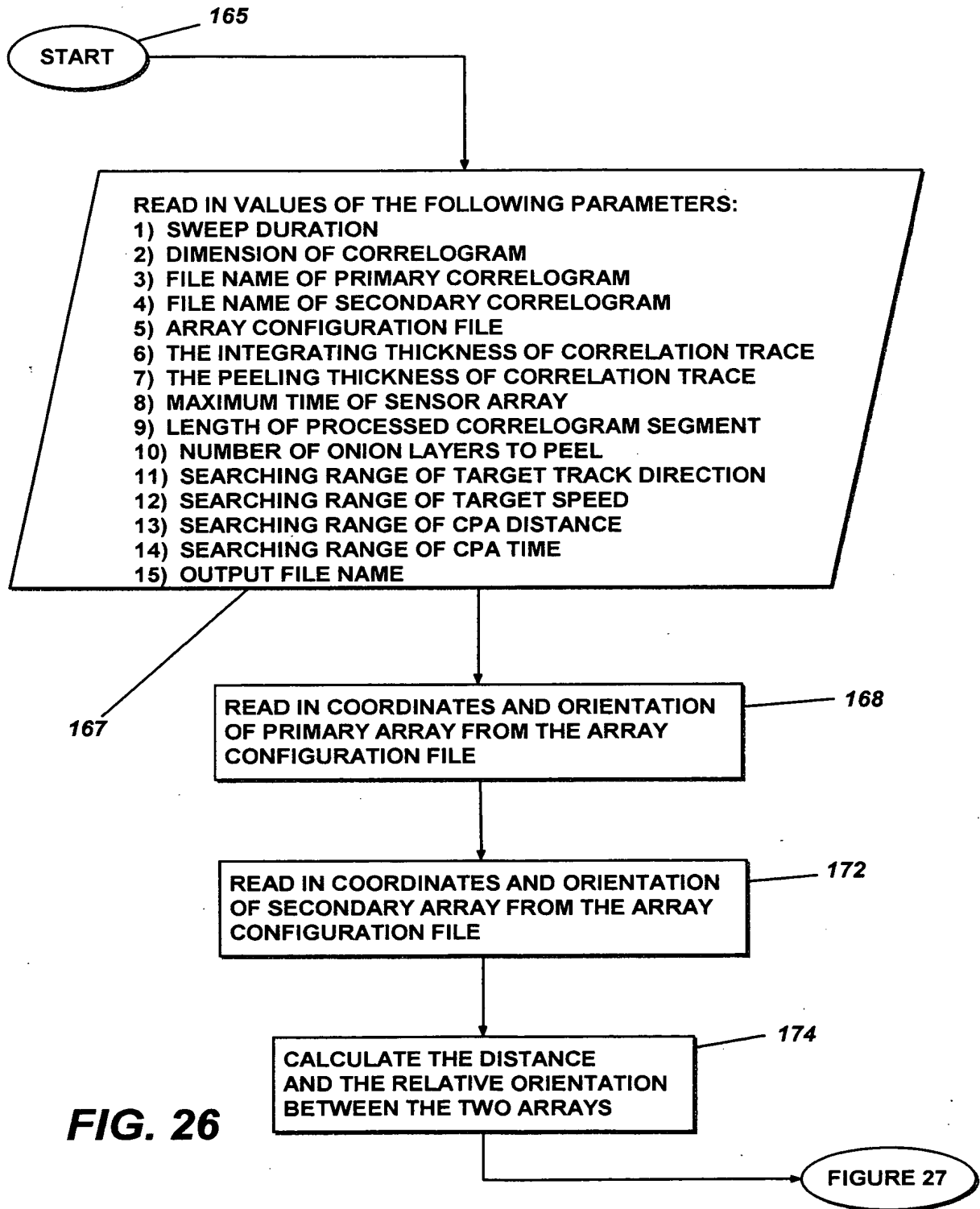


FIGURE 26

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ALLOCATE MEMORY FOR:
1) PRIMARY CORRELOGRAM
2) SECONDARY CORRELOGRAM
3) HOUGH SPACE
4) TEMPORARY BUFFERS
5) DISPLAY BUFFERS

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COMPUTE THE MEAN AND
STANDARD DEVIATION OF
INDIVIDUAL CORRELOGRAM
(THE MEANS ARE USED FOR
PEELING THE DETECTED
CORRELATION TRACES)

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FIG. 27

SEGMENT NUMBER INDEX = 1

182

274

FIGURE 32

183
READ IN SEGMENT OF
PRIMARY AND SECONDARY
CORRELOGRAMS

184

ONION LAYER INDEX = 1

186

268

FIGURE 32

188

187
SPEED INDEX = ITS LOWER LIMIT

189

FIGURE 31

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202

COMPUTE THE TARGET
SPEED (V) BASED ON
SPEED INDEX

204

FIGURE 28

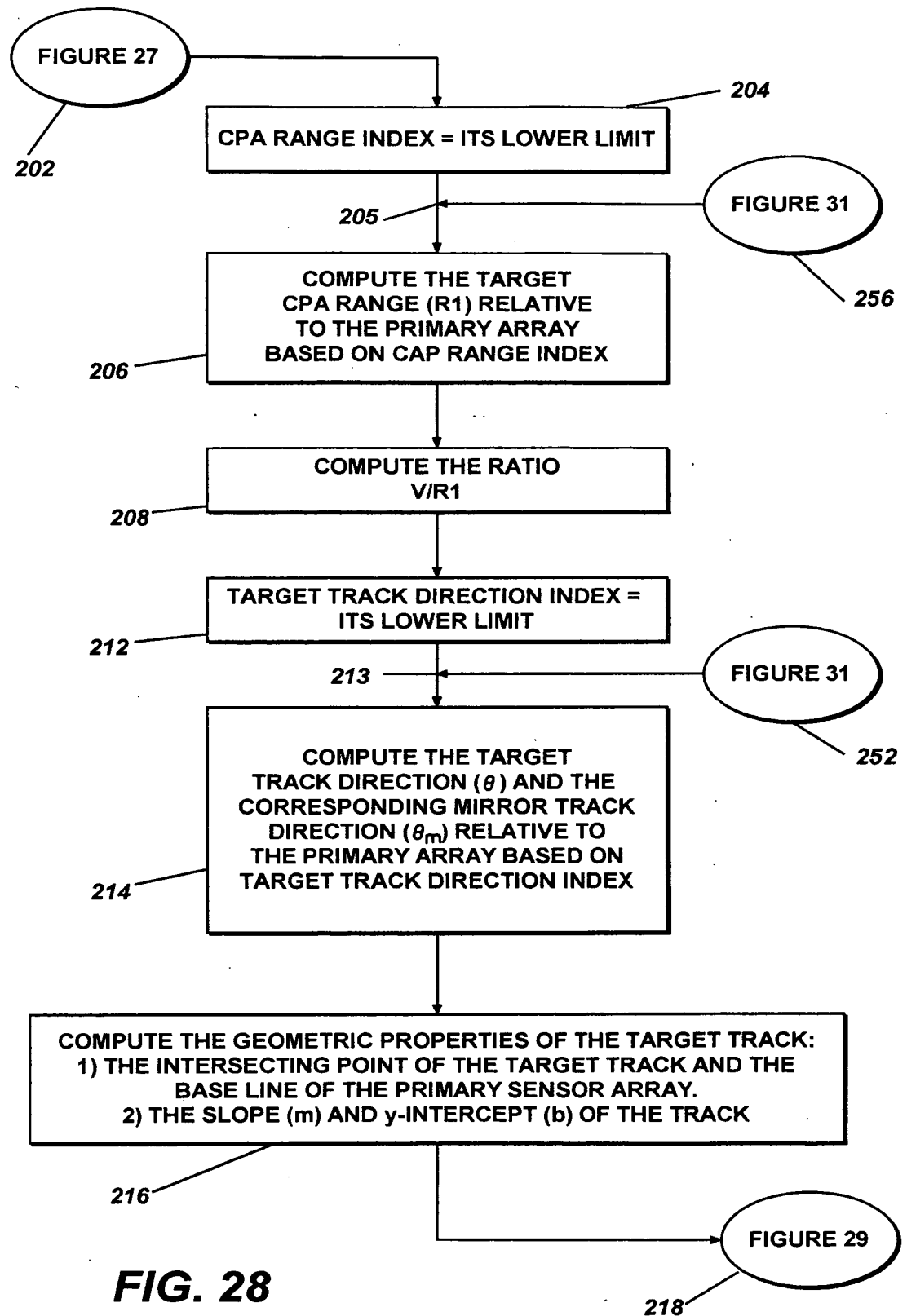


FIGURE 28

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USING THE GEOMETRIC CONSTRAINTS,
COMPUTE THE FOLLOWING CORRESPONDING
PARAMETERS FOR THE SAME TARGET RELATIVE
TO SECONDARY ARRAY:

- 1) CPA RANGE (R_{2r}) AND RATIO (V/R_{2r})
- 2) CPA TIME OFFSET (for t_{02r})
- 3) TARGET TRACK DIRECTION (θ_{2r})

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PERFORM THE SAME COMPUTATION FOR THE
CORRESPONDING MIRROR TRACK: GET THE
VALUES OF (R_{2m} , V/R_{2m} , t_{02m} OFFSET, θ_{2m})

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FIG. 29

CPA TIME (PRIMARY ARRAY) INDEX
= LOWER LIMIT

224

225

FIGURE 30

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COMPUTE THE CPA TIME (t_{01}) BASED ON
THE CPA TIME INDEX AND THE CPA TIME
OFFSETS

226

BASED ON THE VALUES OF:
1) CPA TIME (t_{01} , t_{02r} , t_{02m})
2) CPA RANGE (R_1 , R_2 , R_{2m})
3) SPEED (V)
4) TRACK DIRECTION (θ , θ_{2r} , θ_{2m})
5) MAX_TAU
COMPUTE THE DELAY CURVES: ONE IN
THE PRIMARY AND TWO IN THE
SECONDARY CORRELOGRAM

228

FIGURE 30

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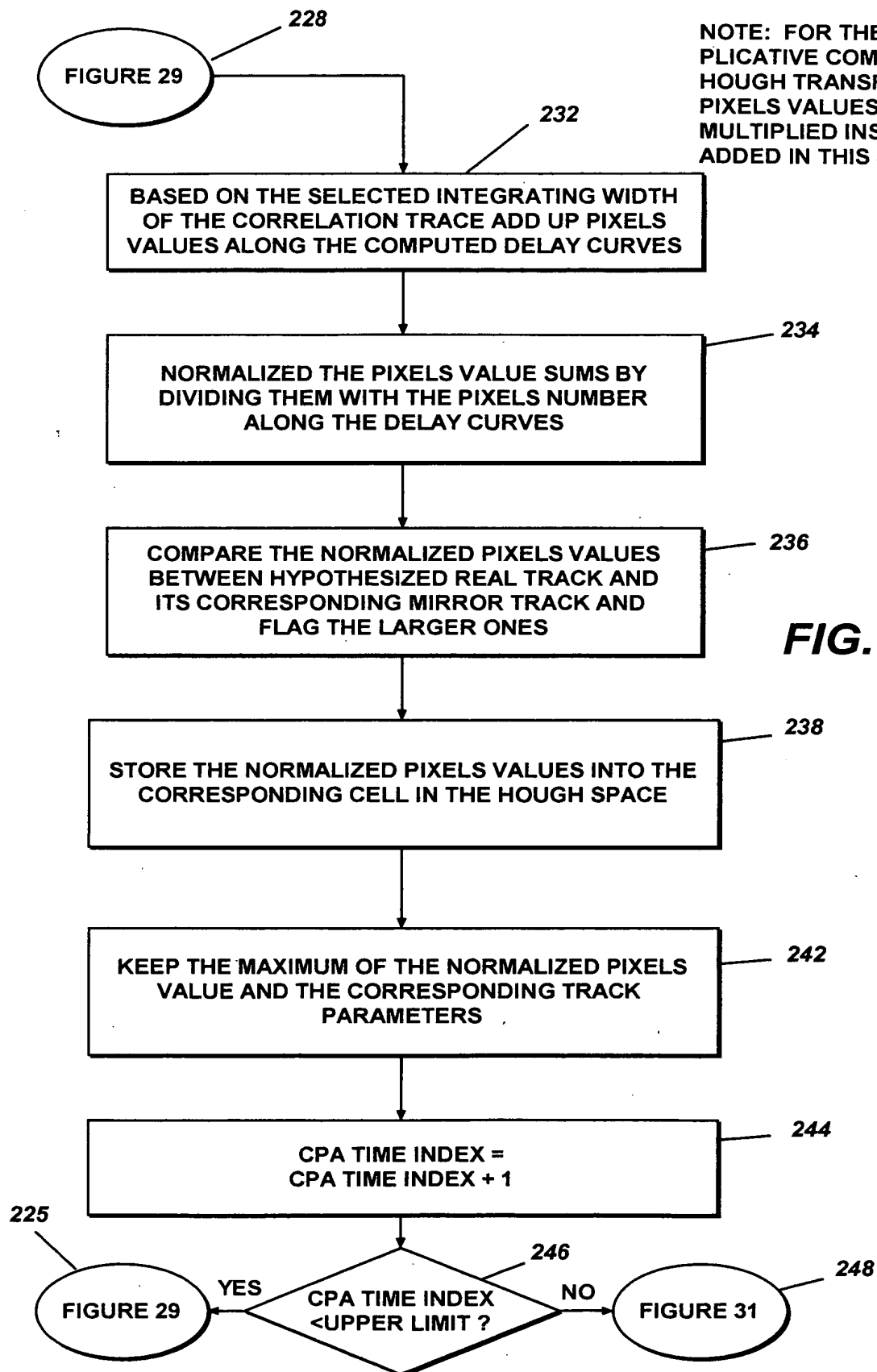


FIG. 30

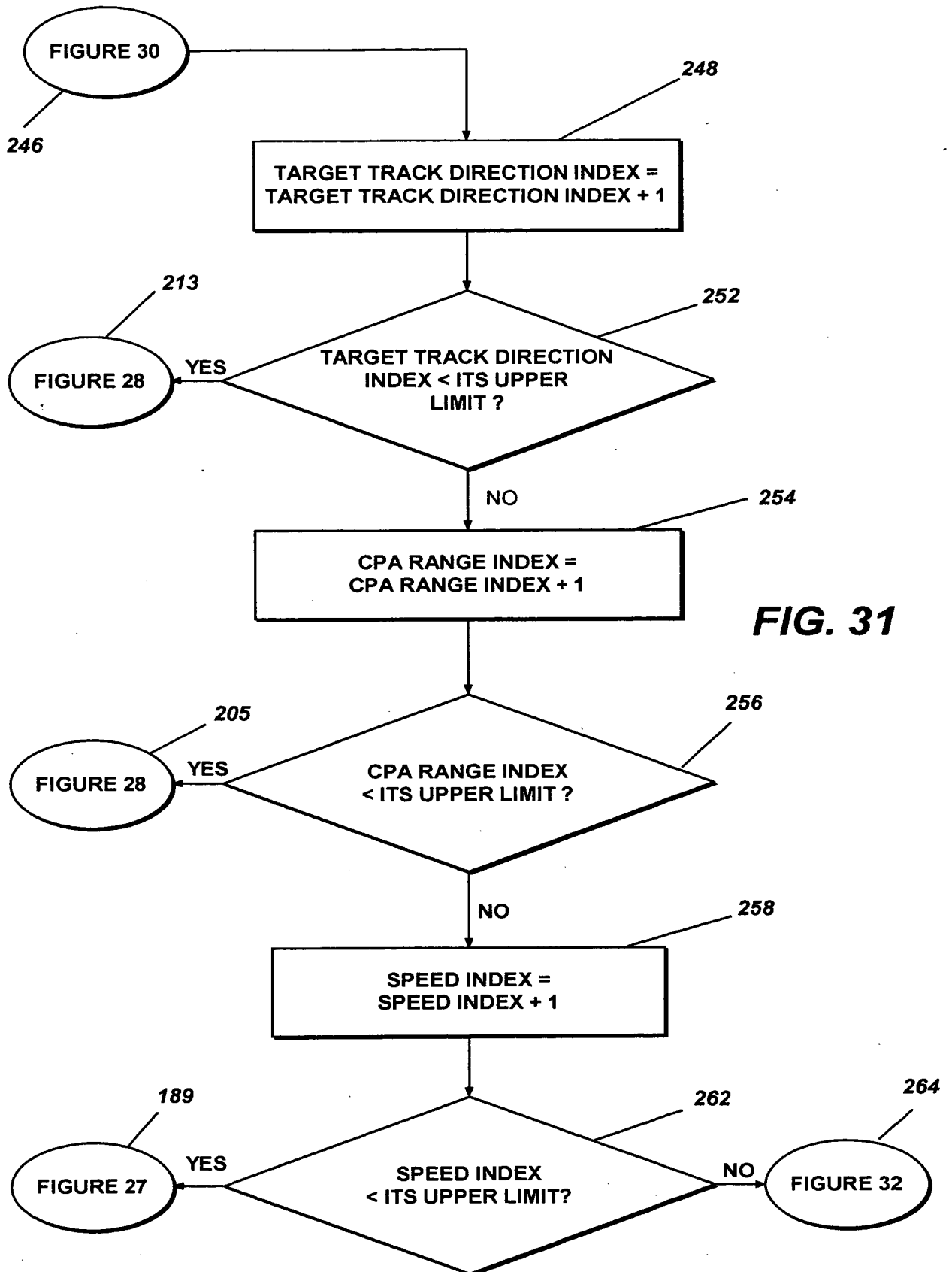


FIG. 31

